

Date: Wed, 18 May 94 04:30:07 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V94 #541  
To: Info-Hams

Info-Hams Digest                      Wed, 18 May 94                      Volume 94 : Issue    541

Today's Topics:

                    Atlas 210X Info Wanted  
                    Azden AZ61 Feedback  
            Daily Summary of Solar Geophysical Activity for 16 May  
                    Man named Loomis invented radio?  
                    Sonobuoy conversion articles  
            subscribe info-ham Laurent PELLISSIER

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

-----

Date: Tue, 17 May 94 19:48:56 GMT  
From: news.mtholyoke.edu!nic.umass.edu!usenet@uunet.uu.net  
Subject: Atlas 210X Info Wanted  
To: info-hams@ucsd.edu

In Article <leigh.769140754@coyote>  
leigh@coyote.rain.org (Leigh Marrin) writes:

>I've been loaned an old Atlas 210X HF transciever, and have an option to  
>buy it for a mere 50 dollars.

>Using a dummy load, it puts about 50 watts of CW out. But using a Hustler  
>40 meter coil & whip, power drops down to about QRP levels, even though  
>the SWR is around 1.5:1. An old-timer with experience with the Atlas  
>says this is fairly common; he says the early solid state rigs did not  
>like loaded whips, and required a special matching network. (He also  
>says that a conventional antenna tuner won't work.)

The loaded whip, even when resonant, will have an impedance much lower than 50 ohms. One of the accessories originally available from Atlas was an impedance transformer to raise the impedance of a mobile whip. You could probably make one using a large toroid core. But there is no reason a tuner shouldn't work if it properly transforms the whip impedance to 50 ohms.

I used an Atlas 210X last year when I was operating in Nicaragua as YN1ASW. I used an MFJ 949E tuner to load a variety of antennas. I did have one difficulty, and that was parasitic oscillations that developed on some bands as I increased the power level. I determined that these oscillations were due to the fact that any particular load, whether coupled directly or through an antenna tuner, might present a complex reactive impedance at some frequency, even though it presents a resistive impedance at the desired operating frequency. Such oscillations did not occur with a dummy load.

I was able to partially tame these problems by putting a one or two watt resistor of several thousand ohms resistance in parallel with the antenna tuner. At the desired frequency this would absorb a negligible part of the output, since it was effectively in parallel with a 50 ohm load, but at frequencies where the antenna and/or tuner looked like a reactive load this contributed some damping and helped to stabilize the rig. This wasn't completely effective for all antennas and power levels, but I had limited access to parts for trying more elaborate solutions.

You'll probably also find that output is very sensitive to supply voltage, and will be substantially lower at 11.8 volts than at 13.6 volts.

>Also, on the large selector knob on the front panel, there is a setting marked "CAL". I can find no mention in the manual as to what "CAL" is

This turns on the calibrator -- you should hear a loud signal every 100 kHz if it is working properly.

>Any other input on the Atlas 210X would be appreciated. ...

Hi Manuals had a rather good packet on the 210/215 at the time I acquired mine, in mid 1992. They had a number of factory modifications in the package. The earlier your particular 210X the more useful these will be, since most of the mods were incorporated into later production units. You'll have to send in your \$2 for a Hi Manuals catalog to see if they currently have the Atlas info.

73 and good luck,  
Al, N1AW

Albert S. Woodhull

Hampshire College, Amherst, MA, USA  
awoodhull@hamp.hampshire.edu

-----  
Date: 18 May 94 03:23:18 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Azden AZ61 Feedback  
To: info-hams@ucsd.edu

Hi All,

PHD Hamfest is this weekend in Kansas City, and I need to make a buying decision on this rig. Does anyone own one, and if so, what are your opinions - pro/con?

Are there any problems with this HT?  
Is the price reasonable (features etc)?  
etc.. etc.. etc..

I have read the spec sheet, but have not seen one. HRO does not carry Azden. Associated Radio (my favorite candy store) sells Azden, but they do not have this particular unit in stock.

Any feedback would be greatly appreciated.

73 de KB0LRB  
Lynn Geitgey  
geitgey@ukanvm.cc.ukans.edu

-----  
Date: 17 May 94 04:29:01 GMT  
From: agate!library.ucla.edu!news.mic.ucla.edu!unixg.ubc.ca!  
quartz.ucs.ualberta.ca!alberta!ve6mgs!usenet@ucbvax.berkeley.edu  
Subject: Daily Summary of Solar Geophysical Activity for 16 May  
To: info-hams@ucsd.edu

/\

DAILY SUMMARY OF SOLAR GEOPHYSICAL ACTIVITY

16 MAY, 1994

/\

(Based In-Part On SESC Observational Data)

## SOLAR AND GEOPHYSICAL ACTIVITY INDICES FOR 16 MAY, 1994

-----

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 136, 05/16/94  
10.7 FLUX=091.4 90-AVG=087 SSN=058 BKI=4533 5433 BAI=026  
BGND-XRAY=A7.7 FLU1=1.7E+06 FLU10=2.3E+04 PKI=4454 6433 PAI=030  
BOU-DEV=042,070,031,039,072,046,033,022 DEV-AVG=044 NT SWF=00:000  
XRAY-MAX= B5.3 @ 1011UT XRAY-MIN= A5.6 @ 2009UT XRAY-AVG= B1.1  
NEUTN-MAX= +002% @ 0445UT NEUTN-MIN= -003% @ 1710UT NEUTN-AVG= -0.2%  
PCA-MAX= +0.2DB @ 1905UT PCA-MIN= -0.5DB @ 0150UT PCA-AVG= +0.0DB  
BOUTF-MAX=55346NT @ 0005UT BOUTF-MIN=55295NT @ 1643UT BOUTF-AVG=55318NT  
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+078,+000,+000  
GOES6-MAX=P:+140NT@ 1821UT GOES6-MIN=N:-104NT@ 0601UT G6-AVG=+104,+031,-044  
FLUXFCST=STD:090,095,095;SESC:090,095,095 BAI/PAI-FCST=020,015,010/020,015,010  
KFCST=3324 4223 2224 4222 27DAY-AP=016,010 27DAY-KP=5344 2233 3333 2212  
WARNINGS=  
ALERTS=  
!!END-DATA!!

NOTE: The Effective Sunspot Number for 15 MAY 94 was 22.3.  
The Full Kp Indices for 15 MAY 94 are: 3- 3o 5+ 6o 4o 3o 3+ 4-  
The 3-Hr Ap Indices for 15 MAY 94 are: 14 15 54 80 30 15 20 23  
Greater than 2 MeV Electron Fluence for 16 MAY is: 3.9E+08

## SYNOPSIS OF ACTIVITY

-----

Solar activity was very low. Region 7723 (N05W26) was the only flare producer with a pair of B-class subflares over the past 24 hours.

Solar activity forecast: solar activity is expected to be very low to low. Region 7722 (N08E12) still has the best, although slim, chance of producing C-class flares.

The geomagnetic field has been at unsettled to minor storm levels over the past 24 hours. High latitude stations saw active to severe storm conditions. Activity is most likely because of a well positioned coronal hole. Energetic electron flux (GT 2 mev) ranged from normal to high levels through the period.

Geophysical activity forecast: the geomagnetic field is expected to be unsettled to active levels in middle latitudes and active to minor storm levels at high latitudes for the next 24 hours. Activity is expected to subside to mostly unsettled

thereafter.

Event probabilities 17 may-19 may

Class M	01/01/01
Class X	01/01/01
Proton	01/01/01
PCAF	Green

Geomagnetic activity probabilities 17 may-19 may

A. Middle Latitudes	
Active	20/30/20
Minor Storm	25/20/10
Major-Severe Storm	10/10/05
B. High Latitudes	
Active	25/25/25
Minor Storm	25/20/10
Major-Severe Storm	10/10/05

HF propagation conditions were near-normal for the low and middle latitude paths. High and polar latitude paths were generally below-normal with an excursion to useless propagation conditions for transpolar and transauroral paths between approximately 12:00 UTC and 15:00 UTC due to a period of major to severe geomagnetic storming during that interval. Conditions then improved throughout the remainder of the day and were beginning to approach near-normal values by the end of the UTC day. Additional periods of minor signal degradation may be observed over the high and polar latitude paths over the next 24 hours. Conditions should begin improving more solidly over the next 24 to 48 hours as this disturbance subsides toward quieter levels.

COPIES OF JOINT USAF/NOAA SESC SOLAR GEOPHYSICAL REPORTS

=====

REGIONS WITH SUNSPOTS. LOCATIONS VALID AT 16/2400Z MAY

-----

NMBR	LOCATION	LO	AREA	Z	LL	NN	MAG	TYPE
7722	N08E12	122	0380	DK0	06	010	BETA	
7723	N05W26	160	0010	HRX	02	002	ALPHA	
7725	N04W09	143	0000	AXX	00	001	ALPHA	
7726	N10E24	110	0010	AXX	05	005	ALPHA	
7720	S08W68	202					PLAGE	
7721	S12W11	145					PLAGE	

REGIONS DUE TO RETURN 17 MAY TO 19 MAY

NMBR LAT LO

7710 S14 041

LISTING OF SOLAR ENERGETIC EVENTS FOR 16 MAY, 1994

-----  
BEGIN MAX END RGN LOC XRAY OP 245MHZ 10CM SWEEP  
NONE

POSSIBLE CORONAL MASS EJECTION EVENTS FOR 16 MAY, 1994

-----  
BEGIN MAX END LOCATION TYPE SIZE DUR II IV  
NO EVENTS OBSERVED

INFERRED CORONAL HOLES. LOCATIONS VALID AT 16/2400Z

-----  
ISOLATED HOLES AND POLAR EXTENSIONS  
EAST SOUTH WEST NORTH CAR TYPE POL AREA OBSN  
NO DATA AVAILABLE FOR ANALYSIS

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

-----  
Date Begin Max End Xray Op Region Locn 2695 MHz 8800 MHz 15.4 GHz  
-----  
15 May: 1722 1739 1757 B6.0 SF 7726 N09E39

REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

-----  
C M X S 1 2 3 4 Total (%)  
-- -- -- -- -- -- -- -- --  
Region 7726: 0 0 0 1 0 0 0 0 001 (100.0)  
Uncorrelated: 0 0 0 0 0 0 0 0 000 ( 0.0)

Total Events: 001 optical and x-ray.

EVENTS WITH SWEEPS AND/OR OPTICAL PHENOMENA FOR THE LAST UTC DAY

-----  
Date Begin Max End Xray Op Region Locn Sweeps/Optical Observations  
-----

NO EVENTS OBSERVED.

NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After. All times associated with x-ray flares (ex. flares which produce associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

Acronyms used to identify sweeps and optical phenomena include:

II	= Type II Sweep Frequency Event
III	= Type III Sweep
IV	= Type IV Sweep
V	= Type V Sweep
Continuum	= Continuum Radio Event
Loop	= Loop Prominence System,
Spray	= Limb Spray,
Surge	= Bright Limb Surge,
EPL	= Eruptive Prominence on the Limb.

\*\* End of Daily Report \*\*

-----  
Date: 18 May 94 05:46:35 GMT  
From: agate!howland.reston.ans.net!gatech!news-feed-1.peachnet.edu!emory!  
cherry.atlanta.com!nanovx!wa4mei!ke4zv!gary@ucbvax.berkeley.edu  
Subject: Man named Loomis invented radio?  
To: info-hams@ucsd.edu

In article <1994May17.145749.20098@kocrsv01.delcoelect.com>  
c22jrb@kocrsv01.delcoelect.com (Jim Buchanan) writes:  
>In article <2r8f28\$ha2@vixen.cso.uiuc.edu>, btbgl194@uxa.cso.uiuc.edu (Bradley T  
Banko) writes:  
>[...]  
>> I read something recently that a man named Loomis might have  
>> "invented" radio in the late 1800's before Marconi & Hertz et al.  
>[...]  
>> Does anybody else know more about this?  
>  
>Dr. Loomis was a dentist. If I remember correctly, he used a non-powered  
>system where he simply connected his "transmitting" antennae to ground via  
>a telegraph key. I assume that at all time a very small potential  
>difference existed between the antennae and ground, when the key opened and  
>closed, a small current flowed and excited the antennae at its resonant

>frequency. I'm not sure what he used as a detector, but it did work.

Loomis took advantage of the roughly 300 volts/meter potential in the atmosphere to activate his transmitter. The current flow is small, except during thunderstorms, but it was sufficient to generate a detectable signal at a distance in the days before widespread use of electricity.

Nathan B. Stubblefield's work was much further advanced. He sent \*voice\* signals over distances greater than 30 miles before Marconi et al sent spark signals. His system was powered by batteries and apparently worked on the principle of sheet conductance. (He was very secretive about the exact details.) He conducted a demonstration for Congress where he communicated by voice with a ship in the Potomac from the shore. His was the first "underground" radio station.

And of course there was Tesla. He had radio controlled boats operating in the lake of Central Park in one demonstration well before Marconi generated his first sparks. Tesla was fascinated by resonance phenomena.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

-----

Date: 18 May 1994 02:35:12 GMT

From: ihnp4.ucsd.edu!library.ucla.edu!psgrain!charnel.ecst.csuchico.edu!olivea!news.bu.edu!dartvax.dartmouth.edu!usenet@network.ucsd.edu

Subject: Sonobuoy conversion articles

To: info-hams@ucsd.edu

In article <2835@bridge2.NSD.3Com.COM>

peter\_simpson@3com.com (Peter Z. Simpson) writes:

> Here's what I found using "From Beverages to OSCAR"...a ham radio article  
> database from Didah Publishing (they advertise in QST and Communications  
Quarterly,  
> I believe):

>

> 5 FQ XTAL DECK FOR THE SONOBABY	Ham Radio	10/72	p.26
> CONVERTING SSQ-23A SONOBUOY TO 2MFM	73 Magazine	3/70	p.96
> SONOBUOY-VHF FM XMTR	Ham Radio	10/71	p.8
> SONOBUOY-VHF FM XMTR (feedback)	Ham Radio	12/71	p.96

Thanks a lot! The buoys I've got are all SSQ-23A, so it looks like



this will be a tremendous help! Now, all I've got to do is remember to get down to the inter-library loan desk tomorrow...

---

```
=====
Kenneth E. Harker  N1PVB      Dartmouth College  Amateur Packet Radio
kenneth.e.harker@dartmouth.edu  Hinman Box 1262    n1pvb@w1et.nh.usa.na
(603) 643-5716      Hanover, NH 03755  or n1pvb-5 on 144.99
=====
```

(PGP Public Key now available on request)

-----

Date: 18 May 94 09:05:25 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: subscribe info-ham Laurent PELLISSIER  
To: info-hams@ucsd.edu

subscribe info-ham Laurent PELLISSIER

-----

Date: 18 May 94 06:12:20 GMT  
From: agate!howland.reston.ans.net!gatech!swrinde!emory!cherry.atlanta.com!nanovx!  
wa4mei!ke4zv!gary@ucbvax.berkeley.edu  
To: info-hams@ucsd.edu

References <94137.114515TONY@wvnm.wvnet.edu>,  
<1994May17.122113.1@dcd00.fnal.gov>, <2rb0eq\$srh@cville-srv.wam.umd.edu>  
Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)  
Subject : Re: Need Advice

In article <2rb0eq\$srh@cville-srv.wam.umd.edu> ham@wam.umd.edu (Scott Richard Rosenfeld) writes:

>How about a nice, older HW-101 or IC-701 or Kenwood TS-120/130S?  
>Why only 2 meters? People just don't get it. VHF stuff is expensive,  
>and who wants older VHF equipment (for the most part)? Older HF stuff  
>is still very current and functional - and cheap, AND you can work  
>around the world with it. When did that cease to be the driving  
>force in amateur radio? Two meters IS all that's left :-(

VHF/UHF is in general much more useful and much more popular than HF for genuine communications. Older equipment is very much available, servicable, and cheap, but newer equipment does tend to attract many buyers. Because VHF/UHF *is* so much more popular than HF, there is a much wider variety of new equipment from which to choose.

If budget is a consideration, however, I just bought a VHF 90 watt

transportable rig at Dayton for \$8. It works too! It's a GE Master Exec in a GE transport case with a TPL amp and marine battery. Just add an antenna and you're in business. Or, if you must buy Japanese, I saw dozens of IC2s for sale for under \$100. That's a perfectly servicable belt rig, better than many current models.

What's the point of "working around the world" if you don't have anything interesting to \*say\* to the other operator? Just exchanging meaningless signal reports isn't interesting. It has been done to death already by others. On VHF/UHF you're much more likely to establish long term friendships with other operators, and to engage them in interesting conversations on a near daily basis. That's rather rare on HF, except on 75 meters, and that's such a zoo of noise and interference that the contacts are rarely pleasant.

Gary

```
--
Gary Coffman KE4ZV          | You make it,      | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it.     | uunet!rsiatl!ke4zv!gary
534 Shannon Way           | Guaranteed!      | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244    |                   |
```

-----  
Date: 18 May 94 08:09:35 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!cs.utexas.edu!  
not-for-mail@ucbvax.berkeley.edu  
To: info-hams@ucsd.edu

References <1994May16.141525.863@pacs.sunbelt.net>, <CpwzA0.3zt9@austin.ibm.com>,  
<rogjdCpy6yC.Gq9@netcom.com>  
Subject : Re: HAM RADIO RUDENESS

rogjd@netcom.com (Roger Buffington) writes:

>blood@austin.ibm.com wrote:

>: Ive decided to quit saving for a HF rig after following this discussion.

>Don't feel that way. Get the HF rig and ignore the few jerks who are  
>rude on the air. There are not many of them.

My advice would be to move to Europe. At least when the people are rude,  
it is not in english :)

(Might be in italian but I didn't say that) :)

-----

End of Info-Hams Digest V94 #541

\*\*\*\*\*